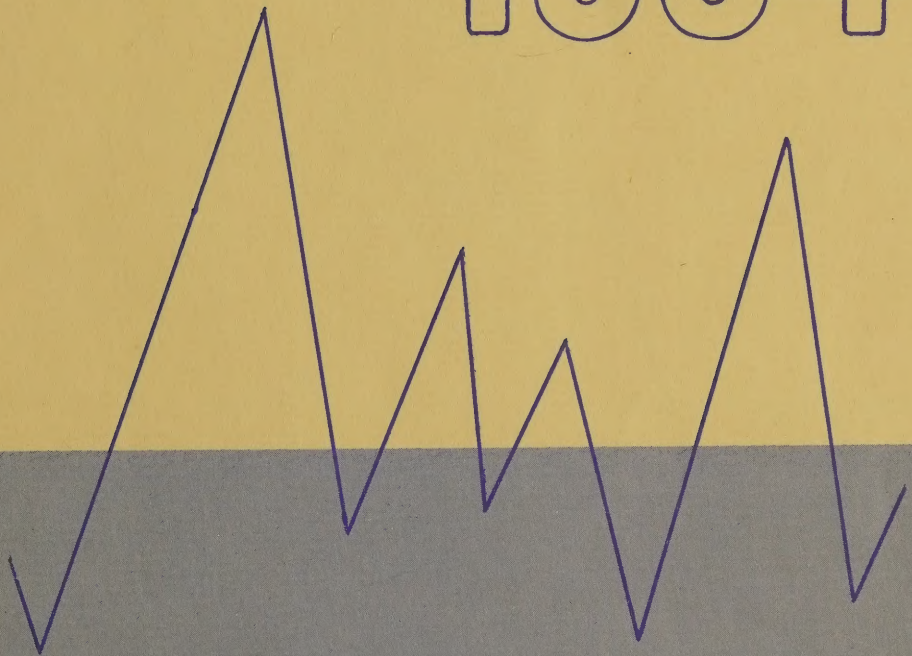


# STATISTICAL REPORT 1964



The Model Reporting Area for  
Blindness Statistics

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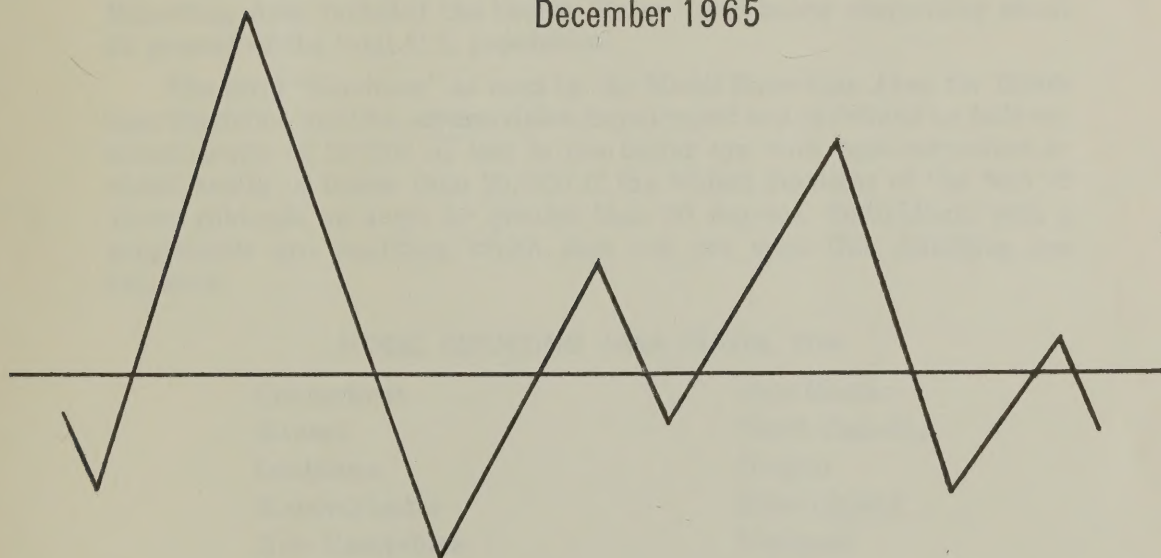




# 1964 Statistical Report

## ANNUAL TABULATIONS OF THE MODEL REPORTING AREA FOR BLINDNESS STATISTICS

Biometrics Branch  
National Institute of  
Neurological Diseases and Blindness  
December 1965



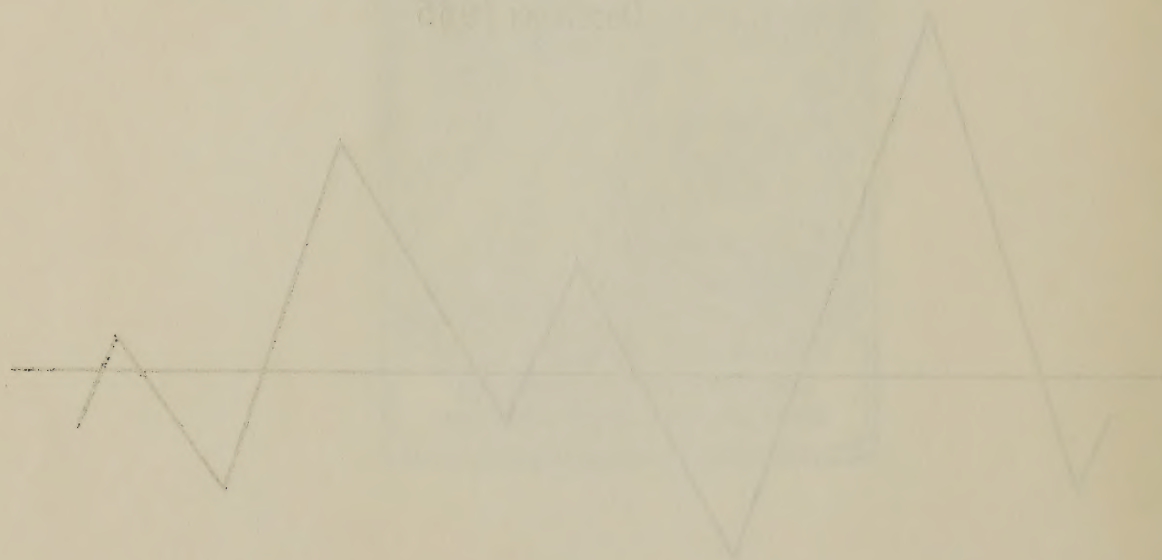
U.S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
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# Statistical Report

ANNUAL TAVULATIONS OF THE  
MOEL REPORTING AREA FOR  
BLINDNESS STATISTICS

Blindness Branch  
Federal Bureau of  
Investigation  
Department of Justice  
October 1965



U.S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
BUREAU OF HEALTH SERVICES

## PREFACE

In 1962 the Biometrics Branch of the National Institute of Neurological Diseases and Blindness, with the counsel and cooperation of the National Society for the Prevention of Blindness, the American Foundation for the Blind, and the Division of Chronic Diseases of the Public Health Service, sponsored the organization of a Model Reporting Area for Blindness Statistics (MRA). This Model Reporting Area is a voluntary association of States which maintain registers of persons with severe vision impairment.

The basis for membership in the MRA is the maintenance of a statewide register of blind persons by a single State agency and the adherence to a specific set of standards. These standards include the adoption of a uniform definition of blindness, collection of specified information, annual updating of the register to reflect current status, adoption of the Standard Classification of Causes of Severe Vision Impairment and Blindness (prepared by the National Society for the Prevention of Blindness), and preparation of specified summary tabulations or tabulating-type punch cards from which such tabulations could be made. In 1964 the Model Reporting Area included the twelve States listed below comprising about 18 percent of the total U.S. population.

The term "blindness" as used by the Model Reporting Area for Blindness Statistics includes severe vision impairment and is defined as follows: visual acuity of 20/200 or less in the better eye with best correction or visual acuity of better than 20/200 if the widest diameter of the field of vision subtends an angle no greater than 20 degrees. Individuals with a progressive eye condition which does not yet meet this definition are excluded.

### MODEL REPORTING AREA STATES, 1964

Connecticut	New Mexico
Kansas	North Carolina
Louisiana	Oregon
Massachusetts	Rhode Island
New Hampshire	Vermont
New Jersey	Virginia

This is the third statistical report of the Model Reporting Area for Blindness Statistics. Further information about the Model Reporting Area may be obtained from:

Chief, Biometrics Branch  
National Institute of Neurological Diseases and Blindness  
National Institutes of Health, Bethesda, Md., 20014





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## GENERAL NOTES

The 1964 Statistical Report is based on register data for 1964 submitted by each of the 12 member States of the Model Reporting Area for Blindness Statistics (MRA). Included in the report are 26 tables.

Population estimates for 1964 used in computing rates were prepared for each State separately by applying the proportion in a given age-sex group (or race-sex group) of the total State population enumerated on April 1, 1960, to the total resident population in the State as estimated by the Census Bureau for July 1, 1964. Population totals were obtained by addition. Rates were not computed for groups with populations under 25,000 because rates may be unduly affected by errors in estimating small population groups. Also, due to normal variations and reporting artifacts, rates computed for such groups might tend to be misleading.

It should be noted that some of the interstate variation in the rates of additions to the register and in rates for the end-of-year totals may be due to variations in the age and race composition of the respective populations as well as to normal annual fluctuations in these rates. Adjustment of rates by age and race will be made in future reports, where appropriate, after additional data and experience have been obtained from the Model Reporting Area program so that meaningful interpretation may be placed on such rates. It should also be noted that some annual fluctuations in rates for register additions, end-of-year totals, and removals may occur as result of revised or improved register procedures in some States.

Although each State has good rapport with the potential sources of report, and completeness of reporting is believed to be fairly high, it should be emphasized that the degree to which there is under-reporting is not known.

Therefore, to the extent that reporting is incomplete, the data on additions to the register in 1964 and end-of-year totals on the register as of December 31, 1964, presented in this report would understate, respectively, the incidence and prevalence of diagnosed blindness.

The reported cause-of-blindness information in each State was classified according to the 1963 revision of the Standard Classification of Causes of Severe Vision Impairment and Blindness. Note should be made that the cause-of-blindness data have certain limitations. Despite efforts to achieve uniformity, it is certain that some differences existed among the States in the interpretation of classification principles. Also, the variation in diagnostic skills and completeness of cause-of-blindness reporting among States or localities may account for some of the differences found. Cause of blindness was tabulated only for those additions who were reported for the first time during 1964 and who were examined by physicians specializing in diseases of the eye, namely ophthalmologists and eye-ear-nose-and-throat specialists. The cause-of-blindness tabulations presented in this report are based on major groupings of the Standard Classification as indicated on page 2.

The MRA, as composed in 1964, cannot be considered to represent adequately the United States as a whole. Projecting MRA data directly to the United States is not recommended.

The following symbols are used in the tables:

- Quantity is zero in frequency tables.
- 0 Quantity is zero in rate or percent tables.
- 0.0 Quantity is more than 0 but less than 0.05 in rate or percent tables.
- Rate is not computed where estimated population was less than 25,000 or where percent with unknown information was 10 or more.



# STANDARD CLASSIFICATION OF CAUSES OF SEVERE VISION IMPAIRMENT AND BLINDNESS, 1963 REVISION \*

[ABBREVIATED LIST]

## MAJOR AFFECTION GROUPS

Glaucoma (other than congenital)  
Myopia  
Keratitis (all types, including keratoconjunctivitis and pannus)  
Other corneal affections (including corneal degeneration, dystrophy, keratomalacia, keratoconus, and other affections of cornea or sclera)  
Cataract  
Uveitis (including iritis, iridocyclitis, choroiditis, chorioretinitis, and sympathetic ophthalmia)  
Retrolental fibroplasia (RLF)  
Retinal degeneration (including retinitis pigmentosa, macular degeneration, and other retinal degeneration)  
Other retinal affections (including retinitis, retinopathy, affection of retinal vessels, coloboma of retina, and detachment of retina)  
Optic nerve atrophy (including optic neuritis and retrobulbar neuritis)  
Unknown (including site and type of affection not established on examination and no report on site and type of affection)  
Other (including all other conditions not specified above)

## MAJOR ETIOLOGY GROUPS

Infectious diseases (all types including prenatal infection)  
Injuries, poisonings  
Neoplasms  
Diabetes mellitus  
Senile degeneration  
Vascular diseases (including cerebrovascular, cardiac, or other vascular conditions)  
Other general diseases (including anemia or other blood disease, nutritional deficiency, other metabolic or growth disorder, renal disease other than complicating pregnancy, multiple sclerosis, other demyelinating disease, cerebral palsy, other disorders of nervous system, hysteria or other disturbance of psychic control, complication of pregnancy, sarcoidosis, inflammatory non-infectious disease, and other specified disease or disorder not elsewhere classified)  
Prenatal influence (not elsewhere classified, including that of hereditary or congenital origin)  
Unknown to science  
Not reported or determined (including etiology not established on examination and no report on etiology)

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\* Prepared by the Committee on Operational Research, National Society for the Prevention of Blindness.



TABLE 1.—Summary table of first additions, readditions, removals, and end-of-year total on register:  
Each MRA State and MRA total, 1964

State	Estimated midyear population in thousands <sup>1</sup>	Number during year			Total on register at end of year	Rate per 100,000 population	
		First additions	Re- additions	Removals		All additions during year	Total on register at end of year
MRA total-----	34,565	<sup>2</sup> 5,414	<sup>2</sup> 107	<sup>2</sup> 4,587	51,910	<sup>2</sup> 16.5	150.2
Connecticut-----	2,766	354	19	549	3,199	13.5	115.7
Kansas-----	2,225	389	10	326	3,231	17.9	145.2
Louisiana-----	3,468	795	11	260	6,219	23.2	179.3
Massachusetts-----	5,338	947	10	901	9,453	17.9	177.1
New Hampshire-----	654	126	—	177	1,084	19.3	165.7
New Jersey-----	6,682	547	32	416	6,887	8.7	103.1
New Mexico-----	1,008	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2,873	( <sup>2</sup> )	285.0
North Carolina-----	4,852	1,233	10	1,244	10,284	25.6	212.0
Oregon-----	1,871	450	11	409	2,169	24.6	115.9
Rhode Island-----	914	98	1	71	1,065	10.8	116.5
Vermont-----	409	77	3	59	691	19.6	168.9
Virginia-----	4,378	398	—	175	4,755	9.1	108.6

<sup>1</sup> Source of population estimates: Bureau of the Census, Current Population Reports, Series P-25, No. 294, November 5, 1964. The figures include persons in the Armed Forces stationed in each State and exclude Armed Forces overseas.

<sup>2</sup> Data on 1964 first additions, readditions, and removals not available for New Mexico.

Exclusive of New Mexico for which data were not available, there were 5,414 first additions and 107 readditions to the MRA registers in 1964. (Readditions include new reports of blindness on individuals who were previously removed from the register due to recovered vision, migration from the State, etc.) The rate per 100,000 population for all additions to the MRA registers was 16.5. By State, the rates ranged from a low of 8.7 per 100,000 in New Jersey to a high of 25.6 in North Carolina.

Removals from the register for the MRA (exclusive of New Mexico) during 1964 totaled 4,587. Changes in updating and administrative

procedures accounted for part, if not all, of the relatively high excess of removals over additions in Connecticut and New Hampshire.

The total number on the register at the end of 1964 for all 12 MRA States was 51,910, or a rate of about 150 per 100,000 population. Rates for the various States ranged from a low of 103.1 per 100,000 in New Jersey to a high of 285.0 per 100,000 in New Mexico.

Refer to General Notes for comments on factors affecting interstate and intrastate variation in register additions, removals, and end-of-year totals.

TABLE 2.—All additions to register by age and sex: MRA total, 1964 (number and rate)  
[Exclusive of New Mexico]

Age	Number			Rate per 100,000 population		
	Total	Male	Female	Total	Male	Female
Total, all ages.....	5,521	2,521	3,000	16.5	15.3	17.6
Under 5.....	117	62	55	3.1	3.2	3.0
5 to 19.....	557	330	227	6.1	7.1	5.1
20 to 44.....	645	369	276	5.9	6.9	5.0
45 to 64.....	1,367	696	671	20.3	21.4	19.4
65 to 74.....	866	355	511	43.0	38.8	46.5
75 to 84.....	1,143	425	718	134.9	119.0	146.5
85 and over.....	544	166	378	312.6	255.4	346.8
Unknown.....	282	118	164			

The rate per 100,000 for additions was lowest under 5 years of age and remained relatively low at a constant level in the succeeding age groups through 44 years of age. Thereafter the rates increased markedly with age in each sex. Males had slightly higher rates than females in

each age group through 64 years, whereas the rates for females were consistently higher in succeeding age groups. The overall rate for females was somewhat higher than for males, 18 compared with 15 per 100,000 population.



TABLE 3.—All additions to register by race and sex: each MRA State and MRA total, 1964 (number and rate)  
[Exclusive of New Mexico]

State	All races			White			Nonwhite			Unknown		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	Number											
MRA total.....	5,521	2,521	3,000	3,890	1,747	2,143	1,151	536	615	480	238	242
Connecticut.....	373	156	217	343	138	205	29	18	11	1	—	1
Kansas.....	399	170	229	357	147	210	31	16	15	11	7	4
Louisiana.....	806	415	391	471	248	223	332	164	168	3	3	—
Massachusetts.....	957	427	530	726	327	399	28	15	13	203	85	118
New Hampshire.....	126	51	75	126	51	75	—	—	—	—	—	—
New Jersey.....	579	283	296	352	155	197	97	43	54	130	85	45
North Carolina.....	1,243	531	712	747	329	418	492	201	291	4	1	3
Oregon.....	461	205	256	381	163	218	11	9	2	69	33	36
Rhode Island.....	99	47	52	94	46	48	2	—	2	3	1	2
Vermont.....	80	23	57	80	23	57	—	—	—	—	—	—
Virginia.....	398	213	185	213	120	93	129	70	59	56	23	33
	Rate per 100,000 population											
MRA total.....	16.5	15.3	17.6	13.3	12.1	14.4	27.1	25.9	28.2			
Connecticut.....	13.5	11.5	15.4	13.0	10.6	15.2	23.8	30.0	17.7			
Kansas.....	17.9	15.4	20.4	16.8	14.0	19.6	30.4	31.4	29.4			
Louisiana.....	23.2	24.5	22.1	20.0	21.4	18.7	29.8	30.7	29.0			
Massachusetts.....	17.9	16.6	19.2									
New Hampshire.....	19.3	15.9	22.5	19.4	15.9	22.6	0	0	0			
New Jersey.....	8.7	8.6	8.7									
North Carolina.....	25.6	22.2	29.0	20.6	18.3	22.9	39.9	33.6	46.0			
Oregon.....	24.6	22.0	27.2					0				
Rhode Island.....	10.8	10.5	11.2	10.5	10.5	10.5	0	0	0			
Vermont.....	19.6	11.4	27.4	19.6	11.4	27.5						
Virginia.....	9.1	9.8	8.4									

Rates were not computed by race for Massachusetts, New Jersey, Oregon, and Virginia because of the high percentage of register additions for whom race was unknown. For the entire MRA, the rates for nonwhites were about twice as high as the rates for whites of either sex. The pattern of higher rates for nonwhites

held in all States for which reliable nonwhite rates could be computed. For the MRA as a whole, the rates for females were higher than the rates for males in both race groups, although some deviation from this pattern was evident among the individual States.

TABLE 4.—All additions to register by age: each MRA State and MRA total, 1964 (number and rate)  
[Exclusive of New Mexico]

State	Age								
	Total	Under 5	5 to 19	20 to 44	45 to 64	65 to 74	75 to 84	85 and over	Unknown
Number									
MRA total.....	5,521	117	557	645	1,367	866	1,143	544	282
Connecticut.....	373	12	56	47	84	50	69	53	2
Kansas.....	399	5	39	43	59	62	120	68	3
Louisiana.....	806	19	73	164	323	79	78	35	35
Massachusetts.....	957	23	59	94	177	182	219	101	102
New Hampshire.....	126	2	16	11	19	20	29	19	10
New Jersey.....	579	18	98	60	140	65	88	39	71
North Carolina.....	1,243	28	94	124	303	250	328	113	3
Oregon.....	461	5	24	34	99	74	139	71	15
Rhode Island.....	99	1	12	16	30	14	13	11	2
Vermont.....	80	3	2	6	18	17	20	12	2
Virginia.....	398	1	84	46	115	53	40	22	37
Rate per 100,000 population									
MRA total.....	16.5	3.1	6.1	5.9	20.3	43.0	134.9	312.6	
Connecticut.....	13.5	4.0	8.0	5.1	14.4	28.2	95.8		
Kansas.....	17.9	2.0	6.5	6.2	13.4	40.5	160.0		
Louisiana.....	23.2	4.2	6.9	15.2	51.3	45.9	109.9		
Massachusetts.....	17.9								
New Hampshire.....	19.3	2.8	9.2	5.5	13.9	43.5			
New Jersey.....	8.7								
North Carolina.....	25.6	5.0	6.3	7.7	35.3	111.6	360.4		
Oregon.....	24.6	2.6	4.6	6.0	25.1	58.3	248.2		
Rhode Island.....	10.8	1.0	5.2	5.4	15.4	22.2	48.1		
Vermont.....	19.6	6.5	1.7	5.0	22.0	60.7			
Virginia.....	9.1	0.2	6.7	3.0	14.5	25.1	44.4		

Age specific rates were not computed for Massachusetts and New Jersey because of the high proportion of register additions with unknown age. Among the other MRA States there was some appreciable interstate variation in the age-specific rates. However, generally for

these States and the MRA as a whole, the rates were lowest under 5 years of age, remained low in the age groups through 44 years, and thereafter increased rather sharply in each succeeding age group.



TABLE 5.—All additions to register by degree of vision: each MRA State and MRA total, 1964  
(number and percent)  
[Exclusive of New Mexico]

State	Degree of vision									
	Total	Absolute blindness	Light perception	Light projection	Less than 5/200	5/200 but less than 10/200	10/200 but less than 20/200	20/200	Field restriction	Unknown
Number										
MRA total---	5,521	349	523	60	968	521	951	1,464	336	349
Connecticut-----	373	33	31	9	49	31	56	106	9	49
Kansas-----	399	14	57	—	65	59	52	126	15	11
Louisiana-----	806	82	79	10	141	41	122	191	92	48
Massachusetts-----	957	54	68	12	179	108	214	241	55	26
New Hampshire-----	126	6	13	5	29	12	20	31	6	4
New Jersey-----	579	34	55	8	106	56	90	143	39	48
North Carolina-----	1,243	56	107	6	229	105	228	379	68	65
Oregon-----	461	26	53	6	82	49	89	126	28	2
Rhode Island-----	99	8	14	2	24	11	15	20	4	1
Vermont-----	80	6	8	—	6	12	16	13	10	9
Virginia-----	398	30	38	2	58	37	49	88	10	86
Percent										
MRA total---	100.0	6.3	9.5	1.1	17.5	9.4	17.2	26.5	6.1	6.3
Connecticut-----	100.0	8.8	8.3	2.4	13.1	8.3	15.0	28.4	2.4	13.1
Kansas-----	100.0	3.5	14.3	0	16.3	14.8	13.0	31.6	3.8	2.8
Louisiana-----	100.0	10.2	9.8	1.2	17.5	5.1	15.1	23.7	11.4	6.0
Massachusetts-----	100.0	5.6	7.1	1.3	18.7	11.3	22.4	25.2	5.7	2.7
New Hampshire-----	100.0	4.8	10.3	4.0	23.0	9.5	15.9	24.6	4.8	3.2
New Jersey-----	100.0	5.9	9.5	1.4	18.3	9.7	15.5	24.7	6.7	8.3
North Carolina-----	100.0	4.5	8.6	0.5	18.4	8.4	18.3	30.5	5.5	5.2
Oregon-----	100.0	5.6	11.5	1.3	17.8	10.6	19.3	27.3	6.1	0.4
Rhode Island-----	100.0	8.1	14.1	2.0	24.2	11.1	15.2	20.2	4.0	1.0
Vermont-----	100.0	7.5	10.0	0	7.5	15.0	20.0	16.3	12.5	11.3
Virginia-----	100.0	7.5	9.5	0.5	14.6	9.3	12.3	22.1	2.5	21.6

Persons reported with vision of exactly 20/200 represented 26.5 percent of the MRA total. However, it should be noted that the generally high proportion of persons reported in the MRA States with exactly this degree of vision probably indicates a lack of precise visual acuity measurement or a lack of careful recording by the eye examiner, particularly since this level of acuity is sufficient to identify the "legally" blind. No doubt a number of persons classified in this category have vision bordering on the "legal" blindness level, either somewhat less than 20/200 or between 20/100 and 20/200.

About 17 percent of all register additions in the MRA had a degree of vision equal to light projection or less, including some 6 percent who were totally blind. Approximately 6 percent of those registered during the year had visual acuity greater than 20/200 but with visual field restricted to 20 degrees or less.

The "unknown" degree of vision category includes persons presumed to be blind by definition but who could not be examined adequately because of age or other reason or for whom there was no report of actual visual acuity. Some 6 percent of all MRA additions were in this category.

TABLE 6.—All additions to register by race, sex and degree of vision: MRA total, 1964 (number and percent)  
[Exclusive of New Mexico]

Race and sex	Degree of vision									
	Total	Absolute blindness	Light perception	Light projection	Less than 5/200	5/200 but less than 10/200	10/200 but less than 20/200	20/200	Field restriction	Unknown
Number										
Total, all races-----	5,521	349	523	60	968	521	951	1,464	336	349
Male-----	2,521	161	237	31	404	215	424	704	187	158
Female-----	3,000	188	286	29	564	306	527	760	149	191
White-----	3,890	225	358	46	676	378	699	1,076	224	208
Male-----	1,747	107	161	24	282	147	310	508	121	87
Female-----	2,143	118	197	22	394	231	389	568	103	121
Nonwhite-----	1,151	91	125	11	222	99	155	275	93	80
Male-----	536	38	54	6	95	45	70	134	55	39
Female-----	615	53	71	5	127	54	85	141	38	41
Unknown-----	480	33	40	3	70	44	97	113	19	61
Male-----	238	16	22	1	27	23	44	62	11	32
Female-----	242	17	18	2	43	21	53	51	8	29
Percent										
Total, all races-----	100.0	6.3	9.5	1.1	17.5	9.4	17.2	26.5	6.1	6.3
Male-----	100.0	6.4	9.4	1.2	16.0	8.5	16.8	27.9	7.4	6.3
Female-----	100.0	6.3	9.5	1.0	18.8	10.2	17.6	25.3	5.0	6.4
White-----	100.0	5.8	9.2	1.2	17.4	9.7	18.0	27.7	5.8	5.3
Male-----	100.0	6.1	9.2	1.4	16.1	8.4	17.7	29.1	6.9	5.0
Female-----	100.0	5.5	9.2	1.0	18.4	10.8	18.2	26.5	4.8	5.6
Nonwhite-----	100.0	7.9	10.9	1.0	19.3	8.6	13.5	23.9	8.1	7.0
Male-----	100.0	7.1	10.1	1.1	17.7	8.4	13.1	25.0	10.3	7.3
Female-----	100.0	8.6	11.5	0.8	20.7	8.8	13.8	22.9	6.2	6.7

Nonwhites were reported to have a slightly greater loss of visual acuity than whites; and proportionately more nonwhites than whites were classified blind due to field restriction. There were also more males than females classi-

fied blind because of field restriction, but otherwise there was little difference by sex in the distribution of register additions according to degree of vision.

TABLE 7.—All additions to register by age and degree of vision: MRA total, 1964 (number and percent)  
[Exclusive of New Mexico]

Age	Degree of vision									
	Total	Absolute blindness	Light perception	Light projection	Less than 5/200	5/200 but less than 10/200	10/200 but less than 20/200	20/200	Field restriction	Unknown
Number										
Total, all ages---	5,521	349	523	60	968	521	951	1,464	336	349
Under 5-----	117	26	11	4	7	1	8	5	—	55
5 to 19-----	557	47	45	4	48	43	76	218	18	58
20 to 44-----	645	47	74	3	88	45	108	191	58	31
45 to 64-----	1,367	68	126	15	247	116	250	341	136	68
65 to 74-----	866	46	95	9	168	83	151	229	51	34
75 to 84-----	1,143	68	98	9	234	146	213	286	45	44
85 and over-----	544	32	58	14	125	61	87	133	5	29
Unknown-----	282	15	16	2	51	26	58	61	23	30
Percent										
Total, all ages---	100.0	6.3	9.5	1.1	17.5	9.4	17.2	26.5	6.1	6.3
Under 5-----	100.0	22.2	9.4	3.4	6.0	0.9	6.8	4.3	0	47.0
5 to 19-----	100.0	8.4	8.1	0.7	8.6	7.7	13.6	39.1	3.2	10.4
20 to 44-----	100.0	7.3	11.5	0.5	13.6	7.0	16.7	29.6	9.0	4.8
45 to 64-----	100.0	5.0	9.2	1.1	18.1	8.5	18.3	24.9	9.9	5.0
65 to 74-----	100.0	5.3	11.0	1.0	19.4	9.6	17.4	26.4	5.9	3.9
75 to 84-----	100.0	5.9	8.6	0.8	20.5	12.8	18.6	25.0	3.9	3.8
85 and over-----	100.0	5.9	10.7	2.6	23.0	11.2	16.0	24.4	0.9	5.3

More than one-third of children under 5 years of age had visual acuity reported to be of light projection or less. Also of note is the fact that 47 percent of the under 5-year age group had unknown degree of vision. These high proportions may be due in part to the difficulty in

obtaining valid examinations of the very young, with only the more severe visual impairments being measurable. The largest percentages in the remaining age groups occurred in the 20/200 category. (See comments for Table 5 regarding 20/200 acuity.)



TABLE 8.—First additions to register by age at onset: each MRA State and MRA total, 1964 (number and percent)  
[Exclusive of Massachusetts and New Mexico]

State	Age at onset									
	Total	At birth	Under 5	5 to 19	20 to 44	45 to 64	65 to 74	75 to 84	85 and over	Unknown
Number										
MRA total---	4,467	557	70	165	376	992	532	506	146	1,123
Connecticut-----	354	58	7	12	28	79	40	35	18	77
Kansas-----	389	31	3	16	32	61	63	91	25	67
Louisiana-----	795	207	13	29	103	279	41	33	7	83
New Hampshire---	126	7	—	2	4	4	8	8	5	88
New Jersey-----	547	32	10	20	39	98	50	46	20	232
North Carolina---	1,233	111	19	55	111	335	279	252	61	10
Oregon-----	450	11	12	9	14	29	10	16	1	348
Rhode Island-----	98	14	2	7	10	20	2	1	—	42
Vermont-----	77	5	1	5	5	15	17	11	7	11
Virginia-----	398	81	3	10	30	72	22	13	2	165
Percent										
MRA total---	100.0	12.5	1.6	3.7	8.4	22.2	11.9	11.3	3.3	25.1
Connecticut-----	100.0	16.4	2.0	3.4	7.9	22.3	11.3	9.9	5.1	21.8
Kansas-----	100.0	8.0	0.8	4.1	8.2	15.7	16.2	23.4	6.4	17.2
Louisiana-----	100.0	26.0	1.6	3.6	13.0	35.1	5.2	4.2	0.9	10.4
New Hampshire---	100.0	5.6	0	1.6	3.2	3.2	6.3	6.3	4.0	69.8
New Jersey-----	100.0	5.9	1.8	3.7	7.1	17.9	9.1	8.4	3.7	42.4
North Carolina---	100.0	9.0	1.5	4.5	9.0	27.2	22.6	20.4	4.9	0.8
Oregon-----	100.0	2.4	2.7	2.0	3.1	6.4	2.2	3.6	0.2	77.3
Rhode Island-----	100.0	14.3	2.0	7.1	10.2	20.4	2.0	1.0	0	42.9
Vermont-----	100.0	6.5	1.3	6.5	6.5	19.5	22.1	14.3	9.1	14.3
Virginia-----	100.0	20.4	0.8	2.5	7.5	18.1	5.5	3.3	0.5	41.5

Valid information on age at onset is difficult to obtain and may be poorly reported. In view of the high proportion with unknown age at onset in all States but one, the distributions by age at onset are of limited value. Interstate

variations are difficult to interpret in the absence of more complete information. However, of some interest are the relatively large proportions of persons reported to be blind at birth in Louisiana and in Virginia.

TABLE 9.—First additions to register by discipline of examiner: each MRA State and MRA total, 1964  
(number and percent)  
[Exclusive of New Mexico]

State	Discipline of examiner					
	Total	Ophthalmologist or EENT	Other M.D.	Optometrist	Other	Unknown
Number						
MRA total.....	5,414	4,843	132	204	79	156
Connecticut.....	354	269	9	3	55	18
Kansas.....	389	349	15	23	—	2
Louisiana.....	795	748	11	21	5	10
Massachusetts.....	947	821	34	67	—	25
New Hampshire.....	126	107	3	16	—	—
New Jersey.....	547	533	4	7	2	1
North Carolina.....	1,233	1,153	34	38	2	6
Oregon.....	450	420	17	12	—	1
Rhode Island.....	98	82	2	—	5	9
Vermont.....	77	62	3	2	10	—
Virginia.....	398	299	—	15	—	84
Percent						
MRA total.....	100.0	89.5	2.4	3.8	1.5	2.9
Connecticut.....	100.0	76.0	2.5	0.8	15.5	5.1
Kansas.....	100.0	89.7	3.9	5.9	0	0.5
Louisiana.....	100.0	94.1	1.4	2.6	0.6	1.3
Massachusetts.....	100.0	86.7	3.6	7.1	0	2.6
New Hampshire.....	100.0	84.9	2.4	12.7	0	0
New Jersey.....	100.0	97.4	0.7	1.3	0.4	0.2
North Carolina.....	100.0	93.5	2.8	3.1	0.2	0.5
Oregon.....	100.0	93.3	3.8	2.7	0	0.2
Rhode Island.....	100.0	83.7	2.0	0	5.1	9.2
Vermont.....	100.0	80.5	3.9	2.6	13.0	0
Virginia.....	100.0	75.1	0	3.8	0	21.1

The great majority (90 percent) of first additions in the total MRA were known to be examined by ophthalmologists or eye-ear-nose-and-throat specialists; and in each of the 11

States for which data were available, at least three-fourths of the first additions were examined by these medical eye specialists.

TABLE 10.—First additions to register by degree of vision and discipline of examiner: MRA total, 1964  
(number and percent)  
[Exclusive of New Mexico]

Degree of vision	Discipline of examiner					
	Total	Ophthalmologist or EENT	Other M.D.	Optometrist	Other	Unknown
Number						
Total, all vision groups.....	5,414	4,843	132	204	79	156
Absolute blindness.....	341	266	37	15	18	5
Light perception.....	517	452	24	29	7	5
Light projection.....	59	48	5	5	1	—
Less than 5/200.....	948	900	10	27	6	5
5/200 but less than 10/200.....	511	454	10	36	5	6
10/200 but less than 20/200.....	937	872	14	36	3	12
20/200.....	1,434	1,352	21	41	10	10
Field restriction.....	324	314	2	5	1	2
Unknown.....	343	185	9	10	28	111
Percent						
Total, all vision groups.....	100.0	100.0	100.0	100.0	100.0	100.0
Absolute blindness.....	6.3	5.5	28.0	7.4	22.8	3.2
Light perception.....	9.5	9.3	18.2	14.2	8.9	3.2
Light projection.....	1.1	1.0	3.8	2.5	1.3	0
Less than 5/200.....	17.5	18.6	7.6	13.2	7.6	3.2
5/200 but less than 10/200.....	9.4	9.4	7.6	17.6	6.3	3.8
10/200 but less than 20/200.....	17.3	18.0	10.6	17.6	3.8	7.7
20/200.....	26.5	27.9	15.9	20.1	12.7	6.4
Field restriction.....	6.0	6.5	1.5	2.5	1.3	1.3
Unknown.....	6.3	3.8	6.8	4.9	35.4	71.2

The percent distributions of first additions according to the degree of vision categories appear to be somewhat similar for medical eye specialists and optometrists. Among those first

additions examined by physicians other than eye specialists, a rather large proportion (50 percent) were reported to have a degree of vision equal to or less than light projection.



TABLE 11.—First additions to register by major affection groups: each MRA State and MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists or eye-ear-nose-throat specialists.]

State	Major affection groups (and rubrics) <sup>1</sup>												
	Total	Glaucoma 110	Myopia 140	Keratitis 310- 319	Other corneal affec- tions 320- 390	Cata- ract 410	Uveitis 510, 520, 570	Retrolental fibro- plasia 630	Retinal degen- eration 650, 660, 670	Other retinal affec- tions 610- 625, 640, 690	Optic nerve atro- phy 710, 720	Un- known 980, 990	Other Resid- ual
	Number												
MRA total.....	4,843	687	138	45	163	1,162	174	49	782	696	307	175	465
Connecticut.....	269	30	10	4	1	36	3	5	59	68	12	6	35
Kansas.....	349	47	1	1	3	139	4	4	46	46	12	13	33
Louisiana.....	748	134	21	8	28	147	54	6	113	52	60	26	99
Massachusetts.....	821	109	23	8	23	96	21	5	210	190	47	25	64
New Hampshire.....	107	7	3	—	4	25	3	1	24	19	6	1	14
New Jersey.....	533	87	15	2	17	92	20	15	74	88	39	41	43
North Carolina.....	1,153	154	31	11	33	443	35	1	118	106	61	43	117
Oregon.....	420	57	15	11	15	88	16	5	94	52	36	5	26
Rhode Island.....	82	8	3	—	10	7	2	3	6	27	11	1	4
Vermont.....	62	7	2	—	2	14	2	1	17	13	1	—	3
Virginia.....	299	47	14	—	27	75	14	3	21	35	22	14	27
	Percent												
MRA total.....	100.0	14.2	2.8	0.9	3.4	24.0	3.6	1.0	16.1	14.4	6.3	3.6	9.6
Connecticut.....	100.0	11.2	3.7	1.5	0.4	13.4	1.1	1.9	21.9	25.3	4.5	2.2	13.0
Kansas.....	100.0	13.5	0.3	0.3	0.9	39.8	1.1	1.1	13.2	13.2	3.4	3.7	9.5
Louisiana.....	100.0	17.9	2.8	1.1	3.7	19.7	7.2	0.8	15.1	7.0	8.0	3.5	13.2
Massachusetts.....	100.0	13.3	2.8	1.0	2.8	11.7	2.6	0.6	25.6	23.1	5.7	3.0	7.8
New Hampshire.....	100.0	6.5	2.8	0	3.7	23.4	2.8	0.9	22.4	17.8	5.6	0.9	13.1
New Jersey.....	100.0	16.3	2.8	0.4	3.2	17.3	3.8	2.8	13.9	16.5	7.3	7.7	8.1
North Carolina.....	100.0	13.4	2.7	1.0	2.9	38.4	3.0	0.1	10.2	9.2	5.3	3.7	10.1
Oregon.....	100.0	13.6	3.6	2.6	3.6	21.0	3.8	1.2	22.4	12.4	8.6	1.2	6.2
Rhode Island.....	100.0	9.8	3.7	0	12.2	8.5	2.4	3.7	7.3	32.9	13.4	1.2	4.9
Vermont.....	100.0	11.3	3.2	0	3.2	22.6	3.2	1.6	27.4	21.0	1.6	0	4.8
Virginia.....	100.0	15.7	4.7	0	9.0	25.1	4.7	1.0	7.0	11.7	7.4	4.7	9.0

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. The affection groups in which blind persons were most frequently classified were cataract (24.0 percent), retinal degeneration (16.1 percent), other retinal affections (14.4 percent), and glaucoma (14.2 percent). For the 11 States tabulated, the percentage of first ad-

ditions classified with cataracts ranged from some 9 percent in Rhode Island to about 40 percent in Kansas. Interstate variations for this and other affection groups may be explained in part by the reasons indicated in the General Notes. Retrolental fibroplasia was reported for 1 percent of all first additions examined by medical eye specialists.

TABLE 12.—First additions to register by race, sex and major affection groups: MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists  
or eye-ear-nose-throat specialists.]

Race and sex	Major affection groups (and rubrics) <sup>1</sup>												
	Total	Glaucoma 110	Myopia 140	Keratitis 310- 319	Other corneal affec- tions 320- 390	Cata- ract 410	Uveitis 510, 520, 570	Retro- lental fibro- plasia 630	Retinal degen- eration 650, 660, 670	Other retinal affec- tions 610- 625, 640, 690	Optic nerve atro- phy 710, 720	Un- known 980, 990	Other Resid- ual
Number													
Total, all races-----	4,843	687	138	45	163	1,162	174	49	782	696	307	175	465
Male-----	2,217	291	69	22	56	524	82	20	344	293	180	72	264
Female-----	2,626	396	69	23	107	638	92	29	438	403	127	103	201
White-----	3,364	400	92	28	96	816	108	32	636	535	194	119	308
Male-----	1,519	151	40	13	29	374	54	13	276	232	113	48	176
Female-----	1,845	249	52	15	67	442	54	19	360	303	81	71	132
Nonwhite-----	1,079	260	30	16	50	275	49	4	63	100	83	25	124
Male-----	499	126	20	8	25	113	21	2	32	31	46	10	65
Female-----	580	134	10	8	25	162	28	2	31	69	37	15	59
Unknown-----	400	27	16	1	17	71	17	13	83	61	30	31	33
Male-----	199	14	9	1	2	37	7	5	36	30	21	14	23
Female-----	201	13	7	—	15	34	10	8	47	31	9	17	10
Percent													
Total, all races-----	100.0	14.2	2.8	0.9	3.4	24.0	3.6	1.0	16.1	14.4	6.3	3.6	9.6
Male-----	100.0	13.1	3.1	1.0	2.5	23.6	3.7	0.9	15.5	13.2	8.1	3.2	11.9
Female-----	100.0	15.1	2.6	0.9	4.1	24.3	3.5	1.1	16.7	15.3	4.8	3.9	7.7
White-----	100.0	11.9	2.7	0.8	2.9	24.3	3.2	1.0	18.9	15.9	5.8	3.5	9.2
Male-----	100.0	9.9	2.6	0.9	1.9	24.6	3.6	0.9	18.2	15.3	7.4	3.2	11.6
Female-----	100.0	13.5	2.8	0.8	3.6	24.0	2.9	1.0	19.5	16.4	4.4	3.8	7.2
Nonwhite-----	100.0	24.1	2.8	1.5	4.6	25.5	4.5	0.4	5.8	9.3	7.7	2.3	11.5
Male-----	100.0	25.8	4.0	1.6	5.0	22.6	4.2	0.4	6.4	6.2	9.2	2.0	13.0
Female-----	100.0	23.1	1.7	1.4	4.3	27.9	4.8	0.3	5.3	11.9	6.4	2.6	10.2

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. There were no appreciable differences between the sexes according to major affection groups, although there was a somewhat larger proportion of males than females in each of the two affection groups, "optic nerve atrophy" and "other affections." A comparison of races, however, showed marked differences for three major affections. These were glaucoma, affect-

ing about 12 percent of the whites compared with 24 percent of the nonwhites; retinal degeneration, affecting 19 percent of the whites compared with 6 percent of the nonwhites; and other retinal affections, affecting 16 percent of the whites compared with 9 percent of the nonwhites. To what extent variations in age distributions among the races account for these differences is unknown.

TABLE 13.—First additions to register by age and major affection groups: MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists or eye-ear-nose-throat specialists.]

Age	Major affection groups (and rubrics) <sup>1</sup>												
	Total	Glaucoma 110	Myopia 140	Keratitis 310- 319	Other corneal affec- tions 320- 390	Cata- ract 410	Uveitis 510, 520, 570	Retrol- ental fibro- plasia 630	Retinal degen- eration 650, 660, 670	Other retinal affec- tions 610- 625, 640, 690	Optic nerve atro- phy 710, 720	Un- known 980, 990	Other Resid- ual
Number													
Total, all ages-----	4,843	687	138	45	163	1,162	174	49	782	696	307	175	465
Under 5-----	92	—	2	1	3	16	2	8	2	9	16	7	26
5 to 19-----	470	5	38	1	13	75	17	37	47	15	53	13	156
20 to 44-----	563	16	18	5	23	80	39	4	89	96	70	23	100
45 to 64-----	1,248	194	42	21	45	252	70	—	122	274	92	43	93
65 to 74-----	790	161	18	8	22	226	18	—	118	142	27	20	30
75 to 84-----	1,011	202	14	7	36	315	11	—	228	106	28	31	33
85 and over-----	427	59	3	2	15	149	8	—	130	18	7	24	12
Unknown-----	242	50	3	—	6	49	9	—	46	36	14	14	15
Percent													
Total, all ages-----	100.0	14.2	2.8	0.9	3.4	24.0	3.6	1.0	16.1	14.4	6.3	3.6	9.6
Under 5-----	100.0	0	2.2	1.1	3.3	17.4	2.2	8.7	2.2	9.8	17.4	7.6	28.3
5 to 19-----	100.0	1.1	8.1	0.2	2.8	16.0	3.6	7.9	10.0	3.2	11.3	2.8	33.2
20 to 44-----	100.0	2.8	3.2	0.9	4.1	14.2	6.9	0.7	15.8	17.1	12.4	4.1	17.8
45 to 64-----	100.0	15.5	3.4	1.7	3.6	20.2	5.6	0	9.8	22.0	7.4	3.4	7.5
65 to 74-----	100.0	20.4	2.3	1.0	2.8	28.6	2.3	0	14.9	18.0	3.4	2.5	3.8
75 to 84-----	100.0	20.0	1.4	0.7	3.6	31.2	1.1	0	22.6	10.5	2.8	3.1	3.3
85 and over-----	100.0	13.8	0.7	0.5	3.5	34.9	1.9	0	30.4	4.2	1.6	5.6	2.8

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. In general, higher proportions of glaucoma, cataract, and retinal degeneration were reported among new registrants in the older age groups than in the younger age groups. Cataract was the most frequently reported affection in each age group over 64 years, and among the most common affections in the age groups under 65. The "other retinal affections" category was more common among persons in the age groups from 20 through 74

years than in the age groups above or below that span of years. The percent with optic nerve atrophy was relatively high in the age groups under 45 compared with the older age groups. One-fourth of the new registrants under 45 years of age were represented in the "other affections" group. The 41 cases of retrolental fibroplasia reported among persons five years of age or over probably represent delayed reporting of blindness since this affection is known to appear shortly after birth.



TABLE 14.—First additions to register by degree of vision and major affection groups: MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists or  
eye-ear-nose-throat specialists.]

Degree of vision	Major affection groups (and rubrics) <sup>1</sup>												
	Total	Glaucoma 110	Myopia 140	Keratitis 310- 319	Other corneal affec- tions 320- 390	Cata- ract 410	Uveitis 510, 520, 570	Retrolental fibroplasia 630	Retinal degen- eration 650, 660, 670	Other retinal affec- tions 610- 625, 640, 690	Optic nerve atro- phy 710, 720	Un- known 980, 990	Other Resid- ual
Number													
Total, all vision groups	4,843	687	138	45	163	1,162	174	49	782	696	307	175	465
Absolute blindness	266	57	4	1	9	25	5	15	7	32	29	22	60
Light perception	452	61	6	9	15	120	28	10	23	81	37	13	49
Light projection	48	6	—	—	1	23	—	—	1	10	3	—	4
Less than 5/200	900	134	14	11	33	248	29	3	120	174	61	20	53
5/200 but less than 10/200	454	47	16	4	23	124	13	1	86	68	35	11	26
10/200 but less than 20/200	872	73	36	9	27	215	35	—	201	136	39	30	71
20/200	1,352	137	56	11	49	352	56	11	243	176	62	38	161
Field restriction	314	154	3	—	1	14	4	2	83	6	23	9	15
Unknown	185	18	3	—	5	41	4	7	18	13	18	32	26
Percent													
Total, all vision groups	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Absolute blindness	5.5	8.3	2.9	2.2	5.5	2.2	2.9	30.6	0.9	4.6	9.4	12.6	12.9
Light perception	9.3	8.9	4.3	20.0	9.2	10.3	16.1	20.4	2.9	11.6	12.1	7.4	10.5
Light projection	1.0	0.9	0	0	0.6	2.0	0	0	0.1	1.4	1.0	0	0.9
Less than 5/200	18.6	19.5	10.1	24.4	20.2	21.3	16.7	6.1	15.3	25.0	19.9	11.4	11.4
5/200 but less than 10/200	9.4	6.8	11.6	8.9	14.1	10.7	7.5	2.0	11.0	9.8	11.4	6.3	5.6
10/200 but less than 20/200	18.0	10.6	26.1	20.0	16.6	18.5	20.1	0	25.7	19.5	12.7	17.1	15.3
20/200	27.9	19.9	40.6	24.4	30.1	30.3	32.2	22.4	31.1	25.3	20.2	21.7	34.6
Field restriction	6.5	22.4	2.2	0	0.6	1.2	2.3	4.1	10.6	0.9	7.5	5.1	3.2
Unknown	3.8	2.6	2.2	0	3.1	3.5	2.3	14.3	2.3	1.9	5.9	18.3	5.6

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. Except for retrolental fibroplasia and glaucoma the 20/200 visual acuity category accounted for the largest proportion of each of the major affection groups. (See comments for Table 5 regarding 20/200 acuity.) Among persons with retrolental fibroplasia, 31 percent

were reported as totally blind and 20 percent had only light perception. About 22 percent of the persons with glaucoma had visual acuity better than 20/200 but with visual field restricted to 20 degrees or less. This is perhaps to be expected since a contracted field is usually found in advanced glaucoma.

TABLE 15.—First additions to register by major etiology groups: each MRA State and MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists  
or eye-ear-nose-throat specialists.]

State	Major etiology groups (and rubrics) <sup>1</sup>										
	Total	Infectious diseases 11.00–29.00	Injuries, poisonings 31.01–49.19	Neoplasms 51.00–59.00	Diabetes 62.10	Senile degeneration 62.20	Vascular diseases 64.10, 64.90	Other general diseases 61.00, 62.30–63.00, 65.10–78.00	Prenatal influence 81.00–89.00	Unknown to science 91.00	Not reported or determined 98.00, 99.00
Number											
MRA total.....	4,843	72	177	39	499	945	199	104	708	785	1,315
Connecticut.....	269	5	12	4	47	41	16	4	64	53	23
Kansas.....	349	—	11	1	28	182	9	8	39	12	59
Louisiana.....	748	20	35	5	47	253	17	34	184	11	142
Massachusetts.....	821	6	21	6	152	57	49	11	89	260	170
New Hampshire.....	107	1	3	—	14	7	8	3	12	39	20
New Jersey.....	533	10	32	4	60	30	14	8	65	113	197
North Carolina.....	1,153	16	25	7	68	251	32	13	120	190	431
Oregon.....	420	11	20	3	23	46	38	16	40	70	153
Rhode Island.....	82	1	4	4	25	9	4	2	15	9	9
Vermont.....	62	1	1	1	7	22	5	1	7	3	14
Virginia.....	299	1	13	4	28	47	7	4	73	25	97
Percent											
MRA total.....	100.0	1.5	3.7	0.8	10.3	19.5	4.1	2.1	14.6	16.2	27.2
Connecticut.....	100.0	1.9	4.5	1.5	17.5	15.2	5.9	1.5	23.8	19.7	8.6
Kansas.....	100.0	0	3.2	0.3	8.0	52.1	2.6	2.3	11.2	3.4	16.9
Louisiana.....	100.0	2.7	4.7	0.7	6.3	33.8	2.3	4.5	24.6	1.5	19.0
Massachusetts.....	100.0	0.7	2.6	0.7	18.5	6.9	6.0	1.3	10.8	31.7	20.7
New Hampshire.....	100.0	0.9	2.8	0	13.1	6.5	7.5	2.8	11.2	36.4	18.7
New Jersey.....	100.0	1.9	6.0	0.8	11.3	5.6	2.6	1.5	12.2	21.2	37.0
North Carolina.....	100.0	1.4	2.2	0.6	5.9	21.8	2.8	1.1	10.4	16.5	37.4
Oregon.....	100.0	2.6	4.8	0.7	5.5	11.0	9.0	3.8	9.5	16.7	36.4
Rhode Island.....	100.0	1.2	4.9	4.9	30.5	11.0	4.9	2.4	18.3	11.0	11.0
Vermont.....	100.0	1.6	1.6	1.6	11.3	35.5	8.1	1.6	11.3	4.8	22.6
Virginia.....	100.0	0.3	4.3	1.3	9.4	15.7	2.3	1.3	24.4	8.4	32.4

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. The etiology category "senile degeneration" accounted for 19.5 percent of first additions reported by medical eye specialists, ranging from 5.6 percent in New Jersey to 52.1 percent in Kansas. There was also considerable interstate variation in the group "diabetes," "unknown to science," and "not reported or determined." Some of the reasons for this interstate variation are explained in the Gen-

eral Notes. The percent of reported blindness due to diabetes, about 10 percent for the MRA as a whole, varied from a low of 5.5 percent in Oregon to a high of 30.5 percent in Rhode Island. For the total MRA, about 16 percent of the additions were classified to an etiology of "unknown to science," 15 percent were due to "prenatal influence," and for another 27 percent the etiology was "not reported or determined."

TABLE 16.—First additions to register by race, sex and major etiology groups: MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists  
or eye-ear-nose-throat specialists.]

Race and sex	Major etiology groups (and rubrics) <sup>1</sup>										
	Total	Infectious diseases 11.00–29.00	Injuries, poisonings 31.01–49.19	Neoplasms 51.00–59.00	Diabetes 62.10	Senile degeneration 62.20	Vascular diseases 64.10, 64.90	Other general diseases 61.00, 62.30–63.00, 65.10–78.00	Prenatal influence 81.00–89.00	Unknown to science 91.00	Not reported or determined 98.00, 99.00
	Number										
Total, all races	4,843	72	177	39	499	945	199	104	708	785	1,315
Male	2,217	37	113	17	194	415	85	50	390	344	572
Female	2,626	35	64	22	305	530	114	54	318	441	743
White	3,364	34	110	28	387	661	153	83	494	534	880
Male	1,519	20	72	11	163	280	66	35	266	226	380
Female	1,845	14	38	17	224	381	87	48	228	308	500
Nonwhite	1,079	27	46	5	73	247	29	16	161	181	294
Male	499	13	32	3	14	116	13	11	93	83	121
Female	580	14	14	2	59	131	16	5	68	98	173
Unknown	400	11	21	6	39	37	17	5	53	70	141
Male	199	4	9	3	17	19	6	4	31	35	71
Female	201	7	12	3	22	18	11	1	22	35	70
	Percent										
Total, all races	100.0	1.5	3.7	0.8	10.3	19.5	4.1	2.1	14.6	16.2	27.2
Male	100.0	1.7	5.1	0.8	8.8	18.7	3.8	2.3	17.6	15.5	25.8
Female	100.0	1.3	2.4	0.8	11.6	20.2	4.3	2.1	12.1	16.8	28.3
White	100.0	1.0	3.3	0.8	11.5	19.6	4.5	2.5	14.7	15.9	26.2
Male	100.0	1.3	4.7	0.7	10.7	18.4	4.3	2.3	17.5	14.9	25.0
Female	100.0	0.8	2.1	0.9	12.1	20.7	4.7	2.6	12.4	16.7	27.1
Nonwhite	100.0	2.5	4.3	0.5	6.8	22.9	2.7	1.5	14.9	16.8	27.2
Male	100.0	2.6	6.4	0.6	2.8	23.2	2.6	2.2	18.6	16.6	24.2
Female	100.0	2.4	2.4	0.3	10.2	22.6	2.8	0.9	11.7	16.9	29.8

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. The percent of males whose etiology was "injuries and poisonings" was somewhat higher than the corresponding percent among females for each race group. A similar pattern also held for the "prenatal influence" category. The percent of females with an etiology of "diabetes" was higher than the corresponding percent for males, particularly among the non-

whites. The difference may be due in part to higher morbidity from diabetes for females in the general population. The proportion of whites with an etiology of "diabetes" was appreciably higher than the corresponding proportion for nonwhites. Except for "not reported or determined," the category "senile degeneration" accounted for the highest proportion in each sex and race.



TABLE 17.—First additions to register by age and major etiology groups: MRA total, 1964 (number and percent)  
[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists  
or eye-ear-nose-throat specialists.]

Age	Major etiology groups (and rubrics) <sup>1</sup>										
	Total	Infectious diseases 11.00–29.00	Injuries, poisonings 31.01–49.19	Neoplasms 51.00–59.00	Diabetes 62.10	Senile degeneration 62.20	Vascular diseases 64.10, 64.90	Other general diseases 61.00, 62.30–63.00, 65.10–78.00	Prenatal influence 81.00–89.00	Unknown to science 91.00	Not reported or determined 98.00, 99.00
Number											
Total, all ages.....	4,843	72	177	39	499	945	199	104	708	785	1,315
Under 5.....	92	—	9	5	—	—	—	10	50	3	15
5 to 19.....	470	12	47	16	2	—	2	16	252	28	95
20 to 44.....	563	12	42	7	82	16	5	32	194	33	140
45 to 64.....	1,248	36	50	7	220	204	49	23	132	173	354
65 to 74.....	790	6	12	3	105	168	37	9	39	189	222
75 to 84.....	1,011	3	9	—	52	337	67	8	19	227	289
85 and over.....	427	1	3	—	5	181	25	2	4	69	137
Unknown.....	242	2	5	1	33	39	14	4	18	63	63
Percent											
Total, all ages.....	100.0	1.5	3.7	0.8	10.3	19.5	4.1	2.1	14.6	16.2	27.2
Under 5.....	100.0	0	9.8	5.4	0	0	0	10.9	54.3	3.3	16.3
5 to 19.....	100.0	2.6	10.0	3.4	0.4	0	0.4	3.4	53.6	6.0	20.2
20 to 44.....	100.0	2.1	7.5	1.2	14.6	2.8	0.9	5.7	34.5	5.9	24.9
45 to 64.....	100.0	2.9	4.0	0.6	17.6	16.3	3.9	1.8	10.6	13.9	28.4
65 to 74.....	100.0	0.8	1.5	0.4	13.3	21.3	4.7	1.1	4.9	23.9	28.1
75 to 84.....	100.0	0.3	0.9	0	5.1	33.3	6.6	0.8	1.9	22.5	28.6
85 and over.....	100.0	0.2	0.7	0	1.2	42.4	5.9	0.5	0.9	16.2	32.1

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. Among persons under 45 years of age, by far the most frequently reported etiology of blindness was "prenatal influence." "Injuries and poisonings" was also relatively common in this age span and accounted for 10 percent of all blindness in persons under 20 years. "Dia-

betes" was of particular etiological significance in the age groups from 20 through 74 years and was responsible for about 18 percent of blindness in the 45 through 64 year age group. From age 65 years on, the three largest etiology groups were "senile degeneration," "unknown to science," and "not reported or determined."

TABLE 18.—First additions to register by degree of vision and major etiology groups: MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists or eye-ear-nose-throat specialists.]

Degree of vision	Major etiology groups (and rubrics) <sup>1</sup>										
	Total	Infectious diseases 11.00–29.00	Injuries, poisonings 31.01–49.19	Neoplasms 51.00–59.00	Diabetes 62.10	Senile degeneration 62.20	Vascular diseases 64.10, 64.90	Other general diseases 61.00, 62.30–63.00, 65.10–78.00	Prenatal influence 81.00–89.00	Unknown to science 91.00	Not reported or determined 98.00, 99.00
Number											
Total, all vision groups---	4,843	72	177	39	499	945	199	104	708	785	1,315
Absolute blindness-----	266	9	41	9	21	28	10	8	38	44	58
Light perception-----	452	5	37	5	60	76	20	12	54	60	123
Light projection-----	48	—	5	1	6	11	2	1	4	9	9
Less than 5/200-----	900	9	22	4	122	190	51	23	85	147	247
5/200 but less than 10/200-----	454	8	11	5	49	113	17	9	54	77	111
10/200 but less than 20/200-----	872	8	9	2	106	185	45	17	124	109	267
20/200-----	1,352	29	28	3	125	264	49	24	214	220	396
Field restriction-----	314	2	10	7	4	65	5	5	77	96	43
Unknown-----	185	2	14	3	6	13	—	5	58	23	61
Percent											
Total, all vision groups---	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Absolute blindness-----	5.5	12.5	23.2	23.1	4.2	3.0	5.0	7.7	5.4	5.6	4.4
Light perception-----	9.3	6.9	20.9	12.8	12.0	8.0	10.1	11.5	7.6	7.6	9.4
Light projection-----	1.0	0	2.8	2.6	1.2	1.2	1.0	1.0	0.6	1.1	0.7
Less than 5/200-----	18.6	12.5	12.4	10.3	24.4	20.1	25.6	22.1	12.0	18.7	18.8
5/200 but less than 10/200-----	9.4	11.1	6.2	12.8	9.8	12.0	8.5	8.7	7.6	9.8	8.4
10/200 but less than 20/200-----	18.0	11.1	5.1	5.1	21.2	19.6	22.6	16.3	17.5	13.9	20.3
20/200-----	27.9	40.3	15.8	7.7	25.1	27.9	24.6	23.1	30.2	28.0	30.1
Field restriction-----	6.5	2.8	5.6	17.9	0.8	6.9	2.5	4.8	10.9	12.2	3.3
Unknown-----	3.8	2.8	7.9	7.7	1.2	1.4	0	4.8	8.2	2.9	4.6

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. About 44 percent of persons whose blindness was due to "injuries and poisonings," and some 36 percent with an etiology of "neoplasms," had visual acuity no greater than light perception, almost one-fourth in both categories being reported as totally blind. Blind-

ness by reason of restricted field of vision was relatively most frequent for those where the etiology was classified as "neoplasms," "unknown to science," and "prenatal influence." In most etiology groups, the most frequently reported degree-of-vision category was 20/200, which may largely be explained by reasons mentioned in the comments regarding Table 5.

TABLE 19.—First additions to register by major affection groups and major etiology groups: MRA total, 1964  
(number and percent)

[Exclusive of New Mexico. Data limited to first additions examined by ophthalmologists  
or eye-ear-nose-throat specialists.]

Major affection groups (and rubrics) <sup>1</sup>	Major etiology groups (and rubrics) <sup>1</sup>										
	Total	Infectious diseases 11.00–29.00	Injuries, poisonings 31.01–49.19	Neoplasms 51.00–59.00	Diabetes 62.10	Senile degeneration 62.20	Vascular diseases 64.10, 64.90	Other general diseases 61.00, 62.30–63.00, 65.10–78.00	Perinatal influence 81.00–89.00	Unknown to science 91.00	Not reported or determined 98.00, 99.00
Number											
Total, all affections.....	4,843	72	177	39	499	945	199	104	708	785	1,315
Glaucoma, 110.....	687	—	3	—	9	182	1	1	2	430	59
Myopia, 140.....	138	—	—	—	—	1	—	—	67	66	4
Keratitis, 310–319.....	45	14	1	1	—	—	—	1	—	4	24
Other corneal affections, 320–390.....	163	7	20	—	—	8	—	6	39	31	52
Cataract, 410.....	1,162	—	15	—	29	485	1	3	138	112	379
Uveitis, 510, 520, 570.....	174	16	9	—	5	—	—	7	8	4	125
Retrolental fibroplasia, 630.....	49	—	49	—	—	—	—	—	—	—	—
Retinal degeneration, 650, 660, 670.....	782	2	2	—	6	246	44	11	204	82	185
Other retinal affections, 610–625, 640, 690.....	696	1	14	6	444	9	106	—	14	7	95
Optic nerve atrophy, 710, 720.....	307	23	14	19	2	2	14	42	27	30	134
Unknown, 980, 990.....	175	1	3	2	1	—	6	3	3	—	156
Other, Residual.....	465	8	47	11	3	12	27	30	206	19	102
Percent											
Total, all affections.....	100.0	1.5	3.7	0.8	10.3	19.5	4.1	2.1	14.6	16.2	27.2
Glaucoma, 110.....	14.2	0	0.1	0	0.2	3.8	0.0	0.0	0.0	8.9	1.2
Myopia, 140.....	2.8	0	0	0	0	0.0	0	0	1.4	1.4	0.1
Keratitis, 310–319.....	0.9	0.3	0.0	0.0	0	0	0	0.0	0	0.1	0.5
Other corneal affections, 320–390.....	3.4	0.1	0.4	0	0	0.2	0	0.1	0.8	0.6	1.1
Cataract, 410.....	24.0	0	0.3	0	0.6	10.0	0.0	0.1	2.8	2.3	7.8
Uveitis, 510, 520, 570.....	3.6	0.3	0.2	0	0.1	0	0	0.1	0.2	0.1	2.6
Retrolental fibroplasia, 630.....	1.0	0	1.0	0	0	0	0	0	0	0	0
Retinal degeneration, 650, 660, 670.....	16.1	0.0	0.0	0	0.1	5.1	0.9	0.2	4.2	1.7	3.8
Other retinal affections, 610–625, 640, 690.....	14.4	0.0	0.3	0.1	9.2	0.2	2.2	0	0.3	0.1	2.0
Optic nerve atrophy, 710, 720.....	6.3	0.5	0.3	0.4	0.0	0.0	0.3	0.9	0.6	0.6	2.8
Unknown, 980, 990.....	3.6	0.0	0.1	0.0	0.0	0	0.1	0.1	0.1	0	3.2
Other, Residual.....	9.6	0.2	1.0	0.2	0.1	0.2	0.6	0.6	4.3	0.4	2.1

<sup>1</sup> Standard Classification of Causes of Severe Vision Impairment and Blindness, 1963 Revision.

These data relate only to those first additions examined by ophthalmologists or EENT specialists. The three most frequent diagnoses were cataracts due to senile degeneration; other retinal affections due to diabetes; and glaucoma with etiology of "unknown to science." These

three groupings, which respectively accounted for 10.0, 9.2, and 8.9 percent of the first additions reported by medical eye specialists, were principally senile cataract, diabetic retinopathy, and primary glaucoma.



TABLE 20.—Total on register by age and sex: MRA total, as of December 31, 1964 (number and rate)

Age	Number			Rate per 100,000 population		
	Total	Male	Female	Total	Male	Female
Total, all ages-----	<sup>1</sup> 51,910	25,766	26,123	<sup>1</sup> 150.2	151.6	148.7
Under 5-----	339	188	151	8.7	9.5	7.9
5 to 19-----	5,286	2,972	2,314	56.0	62.0	49.7
20 to 44-----	<sup>2</sup> 8,319	4,868	3,450	<sup>2</sup> 73.9	88.1	60.2
45 to 64-----	<sup>2</sup> 13,613	7,524	6,088	<sup>2</sup> 198.1	225.6	172.1
65 to 74-----	<sup>3</sup> 8,518	4,029	4,485	<sup>3</sup> 415.5	431.4	401.9
75 to 84-----	<sup>3</sup> 8,676	3,571	5,101	<sup>3</sup> 1,007.7	981.0	1,026.4
85 and over-----	<sup>2</sup> 5,249	1,766	3,482	<sup>2</sup> 2,965.5	2,675.8	3,136.9
Unknown-----	<sup>4</sup> 1,910	848	1,052			

<sup>1</sup> Includes 21 persons with sex not stated.<sup>2</sup> Includes 1 person with sex not stated.<sup>3</sup> Includes 4 persons with sex not stated.<sup>4</sup> Includes 10 persons with sex not stated.

For all ages combined, the rates for end-of-year register totals for males and females were similar. For both sexes, the lowest rates were for the under 5-year age group, increasing sharply thereafter with age. The age-specific rates for males were somewhat higher than

those for the females up through age 74, after which the rates for females were higher. In the 12 MRA States as a whole, about 3 percent of the total population aged 85 years and over were blind.

TABLE 21.—Total on register by race and sex: each MRA State and MRA total, as of December 31, 1964  
(number and rate)

State	Total, all races			White			Nonwhite			Unknown		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Number												
MRA total..	<sup>1</sup> 51,910	25,766	26,123	<sup>2</sup> 39,561	19,533	20,025	<sup>3</sup> 10,673	5,437	5,218	1,676	796	880
Connecticut.....	3,199	1,514	1,685	2,991	1,415	1,576	198	97	101	10	2	8
Kansas.....	3,231	1,528	1,703	2,699	1,252	1,447	286	152	134	246	124	122
Louisiana.....	6,219	3,419	2,800	3,291	1,835	1,456	2,920	1,576	1,344	8	8	—
Massachusetts.....	9,453	4,320	5,133	8,897	4,077	4,820	<del>264</del>	129	135	292	114	178
New Hampshire.....	1,084	516	568	1,084	516	568	—	—	—	—	—	—
New Jersey.....	6,887	3,414	3,473	5,257	2,585	2,672	1,096	532	564	534	297	237
New Mexico.....	<sup>1</sup> 2,873	1,584	1,268	<sup>2</sup> 2,680	1,478	1,199	<sup>3</sup> 192	106	68	1	—	1
North Carolina.....	10,284	4,946	5,338	6,213	3,029	3,184	4,067	1,916	2,151	4	1	3
Oregon.....	2,169	1,103	1,066	2,050	1,030	1,020	49	38	11	70	35	35
Rhode Island.....	1,065	509	556	986	476	510	40	15	25	39	18	21
Vermont.....	691	292	399	691	292	399	—	—	—	—	—	—
Virginia.....	4,755	2,621	2,134	2,722	1,548	1,174	1,561	876	685	472	197	275
Rate per 100,000 population												
MRA total..	<sup>1</sup> 150.2	151.6	148.7	<sup>2</sup> 130.9	131.2	130.5	<sup>3</sup> 246.2	257.3	234.9			
Connecticut.....	115.7	111.6	119.6	113.1	109.0	117.1	162.3	161.7	162.9			
Kansas.....	145.2	138.4	151.9	127.1	118.9	135.2	280.4	298.0	262.7			
Louisiana.....	179.3	201.7	157.9	139.7	158.1	121.9	262.4	295.1	232.1			
Massachusetts.....	177.1	167.6	186.0	170.8	162.2	178.8	203.1	198.5	207.7			
New Hampshire.....	165.7	160.7	170.6	166.5	161.3	171.1	0	0	0			
New Jersey.....	103.1	104.3	101.9	86.2	86.4	86.0	188.6	190.0	187.4			
New Mexico.....	<sup>1</sup> 285.0	311.2	254.1	<sup>2</sup> 288.8	315.1	261.2	<sup>3</sup> 240.0	265.0	170.0			
North Carolina.....	212.0	206.7	217.1	171.6	168.8	174.4	330.1	319.9	339.8			
Oregon.....	115.9	118.5	113.4	111.9	113.1	110.7	125.6	-----	-----			
Rhode Island.....	116.5	113.4	119.6	110.5	108.9	112.1	-----	-----	-----			
Vermont.....	168.9	145.3	191.8	169.4	145.3	192.8	0	0	0			
Virginia.....	108.6	120.0	97.3	78.5	89.3	67.7	171.5	194.2	149.2			

<sup>1</sup> Includes 21 persons with sex not stated.

<sup>2</sup> Includes 3 persons with sex not stated.

<sup>3</sup> Includes 18 persons with sex not stated.

In eight of the nine States which had sufficiently large nonwhite populations to permit meaningful rates for end-of-year register totals to be computed, the rates for nonwhites were appreciably higher than those for whites, and

this race differential was consistent for either sex. New Mexico was the only State to show a higher rate for whites than for nonwhites. There was no consistent pattern in the magnitude of rates by sex among the States.

TABLE 22.—Total on register by age: each MRA State and MRA total, as of December 31, 1964  
(number and rate)

State	Age								
	Total	Under 5	5 to 19	20 to 44	45 to 64	65 to 74	75 to 84	85 and over	Unknown
	Number								
MRA total.....	51,910	339	5,286	8,319	13,613	8,518	8,676	5,249	1,910
Connecticut.....	3,199	28	479	507	760	547	493	350	35
Kansas.....	3,231	12	280	421	710	459	781	555	13
Louisiana.....	6,219	40	527	1,186	2,353	1,118	638	277	80
Massachusetts.....	9,453	73	871	1,367	2,113	1,754	1,830	1,115	330
New Hampshire.....	1,084	5	141	128	223	168	220	174	25
New Jersey.....	6,887	60	957	1,050	1,819	1,160	1,012	628	201
New Mexico.....	2,873	11	154	281	359	371	554	376	767
North Carolina.....	10,284	80	934	1,752	2,812	1,703	1,930	1,067	6
Oregon.....	2,169	7	222	330	528	328	455	281	18
Rhode Island.....	1,065	5	131	196	282	199	148	96	8
Vermont.....	691	6	49	116	171	94	136	115	4
Virginia.....	4,755	12	541	985	1,483	617	479	215	423
	Rate per 100,000 population								
MRA total.....	150.2	8.7	56.0	73.9	198.1	415.5	1,007.7	2,965.5	
Connecticut.....	115.7	9.2	68.6	55.3	130.4	309.0	684.7		
Kansas.....	145.2	4.8	47.0	60.8	161.0	300.0	1,041.3		
Louisiana.....	179.3	8.9	50.1	109.9	373.5	650.0	898.6		
Massachusetts.....	177.1	12.8	64.9	81.2	183.6	453.2	1,082.8	3,097.2	
New Hampshire.....	165.7	7.0	81.5	64.0	162.8	365.2			
New Jersey.....	103.1	8.5	57.8	46.8	124.8	272.9	628.6	2,025.8	
New Mexico.....	285.0								
North Carolina.....	212.0	14.3	62.5	109.0	327.7	760.3	2,120.9		
Oregon.....	115.9	3.6	42.9	58.3	133.7	258.3	812.5		
Rhode Island.....	116.5	5.2	56.7	66.2	144.6	315.9	548.1		
Vermont.....	168.9	13.0	42.2	97.5	208.5	335.7			
Virginia.....	108.6	2.4	43.2	65.2	187.5	292.4	532.2		

For each MRA State the rates for end-of-year register totals generally increased with increasing age. The age-specific rates in North

Carolina and Louisiana, States with large non-white populations, were generally high, particularly among adults.



TABLE 23.—Total on register by degree of vision: each MRA State and MRA total, as of December 31, 1964 (number and percent)

State	Degree of vision									
	Total	Absolute blindness	Light perception	Light projection	Less than 5/200	5/200 but less than 10/200	10/200 but less than 20/200	20/200	Field restriction	Unknown
Number										
MRA total---	51,910	6,172	6,186	491	8,025	4,888	7,279	10,459	2,825	5,585
Connecticut-----	3,199	366	304	69	468	260	276	563	153	740
Kansas-----	3,231	493	383	40	443	393	597	734	121	27
Louisiana-----	6,219	907	802	49	1,229	449	856	1,107	629	191
Massachusetts-----	9,453	839	850	58	1,544	1,037	1,751	2,145	568	661
New Hampshire-----	1,084	107	109	16	220	78	144	238	97	75
New Jersey-----	6,887	923	1,045	89	830	950	925	1,307	382	436
New Mexico-----	2,873	215	363	9	251	199	209	526	21	1,080
North Carolina-----	10,284	1,137	1,222	112	1,726	824	1,506	2,308	390	1,059
Oregon-----	2,169	296	286	7	350	200	403	473	152	2
Rhode Island-----	1,065	126	137	7	172	108	117	174	62	162
Vermont-----	691	93	99	8	104	51	101	120	66	49
Virginia-----	4,755	670	586	27	688	339	394	764	184	1,103
Percent										
MRA total---	100.0	11.9	11.9	0.9	15.5	9.4	14.0	20.1	5.4	10.8
Connecticut-----	100.0	11.4	9.5	2.2	14.6	8.1	8.6	17.6	4.8	23.1
Kansas-----	100.0	15.3	11.9	1.2	13.7	12.2	18.5	22.7	3.7	0.8
Louisiana-----	100.0	14.6	12.9	0.8	19.8	7.2	13.8	17.8	10.1	3.1
Massachusetts-----	100.0	8.9	9.0	0.6	16.3	11.0	18.5	22.7	6.0	7.0
New Hampshire-----	100.0	9.9	10.1	1.5	20.3	7.2	13.3	22.0	8.9	6.9
New Jersey-----	100.0	13.4	15.2	1.3	12.1	13.8	13.4	19.0	5.5	6.3
New Mexico-----	100.0	7.5	12.6	0.3	8.7	6.9	7.3	18.3	0.7	37.6
North Carolina-----	100.0	11.1	11.9	1.1	16.8	8.0	14.6	22.4	3.8	10.3
Oregon-----	100.0	13.6	13.2	0.3	16.1	9.2	18.6	21.8	7.0	0.1
Rhode Island-----	100.0	11.8	12.9	0.7	16.2	10.1	11.0	16.3	5.8	15.2
Vermont-----	100.0	13.5	14.3	1.2	15.1	7.4	14.6	17.4	9.6	7.1
Virginia-----	100.0	14.1	12.3	0.6	14.5	7.1	8.3	16.1	3.9	23.2

Degree of vision for persons on the register at the end of the year is based on the results of the latest recorded examination for each registrant.

With few exceptions the 20/200 category was the largest for each State. (See comments for Table 5 regarding 20/200 acuity.) About 12 percent of all registrants were totally blind and an additional 13 percent had only light perception or projection. (A number of persons in the "light perception" category may belong in the "light projection" category because the distinction between the two categories was not emphasized prior to 1962.) More than 5 percent of

those on the register had better than 20/200 visual acuity but with visual field restricted to 20 degrees or less.

Persons presumed blind but who could not be examined adequately or for whom there was no report of actual visual acuity (i.e., "unknown"), accounted for about 11 percent of the MRA total registrants at the end of 1964. By State, the percents in this category ranged from 0.1 percent in Oregon to a high of 37.6 percent in New Mexico. It is not known to what extent this may account for some of the interstate variation by degree of vision.

TABLE 24.—Total on register by race, sex and degree of vision: MRA total, as of December 31, 1964  
(number and percent)

Race and sex	Degree of vision									
	Total	Absolute blindness	Light perception	Light projection	Less than 5/200	5/200 but less than 10/200	10/200 but less than 20/200	20/200	Field restriction	Unknown
Number										
Total, all races-----	<sup>1</sup> 51,910	<sup>2</sup> 6,172	6,186	491	8,025	4,888	7,279	10,459	2,825	<sup>3</sup> 5,585
Male-----	25,766	3,212	3,006	228	3,911	2,370	3,464	5,169	1,650	2,756
Female-----	26,123	2,959	3,180	263	4,114	2,518	3,815	5,290	1,175	2,809
White-----	<sup>4</sup> 39,561	<sup>2</sup> 4,332	4,456	373	5,902	3,867	5,833	8,341	2,049	<sup>5</sup> 4,408
Male-----	19,533	2,273	2,170	177	2,831	1,850	2,749	4,092	1,201	2,190
Female-----	20,025	2,058	2,286	196	3,071	2,017	3,084	4,249	848	2,216
Nonwhite-----	<sup>6</sup> 10,673	1,675	1,589	109	1,938	890	1,193	1,791	719	<sup>6</sup> 769
Male-----	5,437	846	765	48	999	453	608	907	418	393
Female-----	5,218	829	824	61	939	437	585	884	301	358
Unknown-----	1,676	165	141	9	185	131	253	327	57	408
Male-----	796	93	71	3	81	67	107	170	31	173
Female-----	880	72	70	6	104	64	146	157	26	235
Percent										
Total, all races-----	100.0	11.9	11.9	0.9	15.5	9.4	14.0	20.1	5.4	10.8
Male-----	100.0	12.5	11.7	0.9	15.2	9.2	13.4	20.1	6.4	10.7
Female-----	100.0	11.3	12.2	1.0	15.7	9.6	14.6	20.3	4.5	10.8
White-----	100.0	11.0	11.3	0.9	14.9	9.8	14.7	21.1	5.2	11.1
Male-----	100.0	11.6	11.1	0.9	14.5	9.5	14.1	20.9	6.1	11.2
Female-----	100.0	10.3	11.4	1.0	15.3	10.1	15.4	21.2	4.2	11.1
Nonwhite-----	100.0	15.7	14.9	1.0	18.2	8.3	11.2	16.8	6.7	7.2
Male-----	100.0	15.6	14.1	0.9	18.4	8.3	11.2	16.7	7.7	7.2
Female-----	100.0	15.9	15.8	1.2	18.0	8.4	11.2	16.9	5.8	6.9

<sup>1</sup> Includes 21 persons with sex not stated.

<sup>2</sup> Includes 1 person with sex not stated.

<sup>3</sup> Includes 20 persons with sex not stated.

<sup>4</sup> Includes 3 persons with sex not stated.

<sup>5</sup> Includes 2 persons with sex not stated.

<sup>6</sup> Includes 18 persons with sex not stated.

Degree of vision for persons on the register at the end of the year is based on the results of the latest recorded examination for each registrant.

There was no appreciable sex difference in

the percent distribution by degree of vision. Nonwhites appear to have somewhat higher proportions than whites in the more severe visual loss groups.

TABLE 25.—Total on register by age and degree of vision: MRA total, as of December 31, 1964  
(number and percent)

Age	Degree of vision									
	Total	Absolute blindness	Light perception	Light projection	Less than 5/200	5/200 but less than 10/200	10/200 but less than 20/200	20/200	Field restriction	Unknown
Number										
Total, all ages...	51,910	6,172	6,186	491	8,025	4,888	7,279	10,459	2,825	5,585
Under 5.....	339	85	52	8	12	5	14	13	—	150
5 to 19.....	5,286	875	717	38	422	301	649	1,332	74	878
20 to 44.....	8,319	1,065	963	70	1,113	718	1,163	1,985	549	693
45 to 64.....	13,613	1,753	1,668	134	2,391	1,322	1,853	2,494	1,085	913
65 to 74.....	8,518	965	1,106	81	1,574	898	1,163	1,565	527	639
75 to 84.....	8,676	884	973	83	1,462	983	1,389	1,754	384	764
85 and over.....	5,249	451	598	70	905	571	821	1,051	147	635
Unknown.....	1,910	94	109	7	146	90	227	265	59	913
Percent										
Total, all ages...	100.0	11.9	11.9	0.9	15.5	9.4	14.0	20.1	5.4	10.8
Under 5.....	100.0	25.1	15.3	2.4	3.5	1.5	4.1	3.8	0	44.2
5 to 19.....	100.0	16.6	13.6	0.7	8.0	5.7	12.3	25.2	1.4	16.6
20 to 44.....	100.0	12.8	11.6	0.8	13.4	8.6	14.0	23.9	6.6	8.3
45 to 64.....	100.0	12.9	12.3	1.0	17.6	9.7	13.6	18.3	8.0	6.7
65 to 74.....	100.0	11.3	13.0	1.0	18.5	10.5	13.7	18.4	6.2	7.5
75 to 84.....	100.0	10.2	11.2	1.0	16.9	11.3	16.0	20.2	4.4	8.8
85 and over.....	100.0	8.6	11.4	1.3	17.2	10.9	15.6	20.0	2.8	12.1

Degree of vision for persons on the register at the end of the year is based on the results of the latest recorded examination for each registrant.

The pattern in this table is somewhat similar to that of Table 7, although relatively more of all registrants (11.9 percent) were totally blind than were first additions during the year (6.3

percent). About 43 percent of all registered persons under 5 years of age had vision limited to light projection or less. The percent of the blind with "unknown" degree of vision was relatively high in the younger age groups as well as those 85 years or older, probably indicative of the difficulty in obtaining valid examinations of persons in these age groups.



TABLE 26.—Removals from register by reason for removal: each MRA State and MRA total, 1964  
(number and percent)  
[Exclusive of New Mexico]

State	Reason for removal					
	Total	Death	Left State	Sight restored	Unable to locate	Other
	Number					
MRA total.....	4,587	3,013	411	696	373	94
Connecticut.....	549	407	61	22	16	43
Kansas.....	326	190	31	97	5	3
Louisiana.....	260	146	13	91	6	4
Massachusetts.....	901	787	72	23	7	12
New Hampshire.....	177	137	16	21	3	—
New Jersey.....	416	198	71	71	71	5
North Carolina.....	1,244	741	67	281	147	8
Oregon.....	409	205	37	47	104	16
Rhode Island.....	71	61	8	—	2	—
Vermont.....	59	42	4	10	3	—
Virginia.....	175	99	31	33	9	3
	Percent					
MRA total.....	100.0	65.7	9.0	15.2	8.1	2.0
Connecticut.....	100.0	74.1	11.1	4.0	2.9	7.8
Kansas.....	100.0	58.3	9.5	29.8	1.5	0.9
Louisiana.....	100.0	56.2	5.0	35.0	2.3	1.5
Massachusetts.....	100.0	87.3	8.0	2.6	0.8	1.3
New Hampshire.....	100.0	77.4	9.0	11.9	1.7	0
New Jersey.....	100.0	47.6	17.1	17.1	17.1	1.2
North Carolina.....	100.0	59.6	5.4	22.6	11.8	0.6
Oregon.....	100.0	50.1	9.0	11.5	25.4	3.9
Rhode Island.....	100.0	85.9	11.3	0	2.8	0
Vermont.....	100.0	71.2	6.8	16.9	5.1	0
Virginia.....	100.0	56.6	17.7	18.9	5.1	1.7

Death generally accounted for more than half of the removals from the various State registers. For the MRA as a whole death accounted for about 66 percent of the removals. How-

ever, because of revised or improved register procedures effected in some States during 1964, data on removals during the year should not be considered typical for all States.







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**PUBLIC HEALTH SERVICE PUBLICATION NO. 1419**

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**Public Health Service**